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INTRODUCTION.

The present summary for 1903 is based essentially upon data received from about 166 regular Weather Bureau stations, 33 regular Canadian stations, and from such climate and crop sections as have forwarded their annual summaries in time. The statistical tables and charts have been prepared under the supervision of Mr. W. B. Stockman, District Forecaster, in charge of the Division of Meteorological Records; the tables of movements of high and low areas by Mr. George E. Hunt, Chief Clerk, Forecast Division; and the summary of flood movements by Dr. H. C. Frankenfield, District Forecaster.

FORECAST DIVISION.

Prof. E. B. GARRIOTT, in charge.

HIGHS AND LOWS OF 1903.

The high and low data for the year 1903 have been compiled under the general plan followed since 1895, and they differ but slightly in their general features from those of the preceding eight years.

The tables herewith give the summary for each month of the year 1903, and likewise a summary for the nine years from 1895 to 1903, inclusive.

Summary of highs and lows for 1903.

Month.	Highs.							Lows.						
	Mean first observed.		Mean last observed.		Path, average.		Hourly velocity.	Mean first observed.		Mean last observed.		Path, average.		Hourly velocity.
	Lat. N.	Long. W.	Lat. N.	Long. W.	Length.	Duration, days.		Lat. N.	Long. W.	Lat. N.	Long. W.	Length.	Duration, days.	
	°	°	°	°	*Miles.*			°	°	°	°	*Miles.*		
Jan.....	47	112	35	76	2,556	3.1	36.0	44	110	44	67	2,565	3.0	35.7
Feb.....	48	115	37	74	2,591	4.0	27.8	40	114	46	61	3,168	4.2	31.8
Mar.....	50	116	44	63	3,164	4.6	29.4	37	104	44	72	2,025	2.7	32.8
April...	43	113	43	90	1,845	3.5	21.9	44	113	44	73	2,378	3.6	29.9
May.....	47	112	48	70	2,475	3.2	32.6	37	114	40	80	2,282	4.9	20.1
June ...	47	118	43	93	2,044	3.5	26.2	42	106	42	82	1,914	3.6	24.6
July ..	47	112	38	81	2,456	4.6	23.2	42	110	46	74	2,278	3.6	27.0
Aug.....	50	113	42	66	3,046	5.4	24.6	43	110	44	70	2,403	3.9	25.8
Sept....	48	119	41	69	3,618	5.5	27.7	39	99	44	64	2,625	4.2	26.1
Oct.....	43	120	42	75	3,294	4.9	29.0	43	107	45	66	2,803	4.3	29.5
Nov.....	50	113	37	77	2,650	4.0	30.9	47	110	44	74	2,225	2.8	35.5
Dec.....	47	108	37	78	2,460	3.4	31.6	46	111	46	65	2,736	2.9	39.3
Means..	47	114	41	76	2,683	4.1	28.4	42	109	44	71	2,450	3.6	29.8

Summary, 1895 to 1903, inclusive.

Year.	Highs.					Lows.				
	Mean first observed.		Mean last observed.		Hourly velocity.	Mean first observed.		Mean last observed.		Hourly velocity.
	Lat. N.	Long. W.	Lat. N.	Long. W.		Lat. N.	Long. W.	Lat. N.	Long. W.	
	°	°	°	°	*Miles.*	°	°	°	°	*Miles.*
1895.....	47	110	39	80	24	45	107	45	73	26
1896.....	48	111	42	75	24	46	111	46	74	26
1897.....	48	113	38	78	24	46	110	46	71	26
1898.....	46	114	40	72	25	45	111	46	67	26
1899.....	47	114	41	72	24	44	111	46	68	27
1900.....	46	108	42	75	28	44	106	45	73	30
1901.....	48	112	41	75	28	42	105	44	74	28
1902.....	48	112	40	70	29	42	108	45	72	30
1903.....	47	114	41	76	28	42	109	44	71	30
Means.....	47	112	40	75	26	44	109	45	72	28

George E. Hunt, Chief Clerk Forecast Division.

RIVER AND FLOOD SERVICE.

The year 1903 was remarkable both for its unprecedented number of floods as well as for the extreme severity of many of them. There were floods of pronounced character in every month of the year except December. Detailed accounts of these floods will be found in the WEATHER REVIEWS for the appropriate months, except those of the great spring floods in the Mississippi watershed, which will shortly appear in a separate publication.

For all the floods the usual warnings were issued and the reputation of the River and Flood Service for promptness and accuracy was well maintained. For the great floods in the valleys of the Mississippi and Missouri the warnings, although issued from four days to four weeks in advance, were precise and of astonishing accuracy, both as to dates and stages, and they were the means of saving many lives and an immense amount of property that would otherwise have been lost.

During the year the New York and Texas river districts were greatly improved by the establishment of a considerable number of new stations, The district of Philadelphia was created, with territory comprising the watersheds of the Delaware and Passaic rivers. New stations were established as follows:

Hudson River.
Castleton, N. Y.
Cohoes, N. Y.
Corinth, N. Y.
Glens Falls, N. Y.
Mechanicsville, N. Y.
Stuyvesant, N. Y.
Troy, N. Y.

Passaic River.
Chatham, N. J.

Ramapo River.
Mahwah, N. J.

Sabine River.
Logansport, La.
Orange, Tex.

Mohawk River.
Fort Hunter, N. Y.
Little Falls, N. Y.
Schenectady, N. Y.
Utica, N. Y.

Trinity River.
Dallas, Tex.
Riverside, Tex.
Liberty, Tex.

Brazos River.
Hempstead, Tex.

Pompton River.
Pompton Plains, N. J.

Rockaway River.
Old Boonton, N. J.

Hoosick River.
Hoosick Falls, N. Y.
Schagticoke, N. Y.

Neches River.
Rockland, Tex.
Beaumont, Tex.

Colorado River.
Ballinger, Tex.
Austin, Tex.
Columbus, Tex.

The highest and lowest stages, together with the annual ranges at 151 selected stations are given in Table VII.—*H. C. Frankenfield, District Forecaster.*